



## PATENT ABSTRACTS OF JAPAN

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**F16C 33/66**  
**F16C 33/37**

(21) Application number: 09245942

(22) Date of filing: 28.08.97

(71) Applicant: NIPPON SEIKO KK

(72) Inventor: TANAKA HIROSHI  
 MATSUNAGA SHIGEKI

(54) ROLLING BEARING

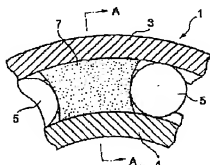
formed on the ball 5 and a rolling surface for completion.

(57) Abstract:

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PROBLEM TO BE SOLVED: To provide a rolling bearing suitable for a use under high temperature non-lubrication.

SOLUTION: A radial ball bearing 1 is provided with an outer ring 3, an inner ring 4, a ball 5, and spacers 7 arranged in a dispersed state in the space thereof. In a case of manufacture of the solid lubrication bearing of the radial ball bearing 1, first, a solid lubricant, a filler, and a liquid binder are kneaded together to prepare a paste-form fluid substance. After a bearing having no holder is washed and a mold release agent is applied, balls are arranged at equal intervals in a space between the outer and inner rings and a gap part formed from the inner and outer rings and the ball is filled with paste. After filling, the surface of the filler is shaped and thereafter, a filled bearing is burnt in an electric furnace at a specified temperature pattern. After cooling, the bearing is taken out from the furnace and a window to discharge wear powder, generated during rotation of the bearing, to a position where a premarked ball is present is opened. Thereafter, by effecting prerotation, smoothness of rotation is confirmed, and a film of the lubricant is uniformly



(19)



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## PATENT ABSTRACTS OF JAPAN

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E02F 9/12

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(21) Application number: 10296913

(71) Applicant: NSK LTD

(22) Date of filing: 19.10.98

(72) Inventor: YABE SHUNICHI

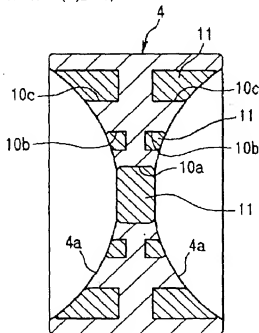
(54) REVOLVING RING BEARING

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(57) Abstract:

**PROBLEM TO BE SOLVED:** To provide a revolving ring bearing with the regular grease refill period prolonged to a great extent by storing a lubricant in a separator and supplying it automatically as an assist lubricant for the grease or a substitute therefor.

**SOLUTION:** Rollers are installed between an inner ring and outer ring, and a separator made of synthetic resin is installed between adjoining rollers, and an internal gear is provided on the inside circumferential surface of the inner ring. In this revolving ring bearing, voids 10a, 10b, 10c are formed in that portion of separator 4 which is close to the rollers and filled with a lubricant-containing polymer 11 so that it is practicable to supply the lubricant from the polymer 11 to the rollers.





## PATENT ABSTRACTS OF JAPAN

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**F16C 33/44**  
**F16C 33/38**

(21) Application number: 11319476

(71) Applicant: KOYO SEIKO CO LTD

(22) Date of filing: 10.11.99

(72) Inventor: ARAI YAMATO

(54) CAGE MADE OF SYNTHETIC RESIN FOR  
 ROLLING BEARING

lubricity is enhanced.

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(57) Abstract:

PROBLEM TO BE SOLVED: To provide a cage made of synthetic resin for a rolling bearing having good machinability and being manufacturable at reduced cost.

SOLUTION: The cage made of synthetic resin for the rolling bearing has graphite 6 and cotton pieces 5 exposed to a guide surface 1 for a bearing ring and to a pocket surface 3, with a phenol resin layer exposed to the other surface 8. Because the cage is made from phenol resin containing the graphite 6 and the cotton pieces 5, injection molding at high production speed is made possible and the need for a slicing process is eliminated, resulting in reduced manufacturing cost. Because the graphite 6 of solid lubricant and the cotton pieces 5 containing oil are exposed to the guide surface 1 for the bearing ring and the pocket surface 3,

